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December 20, 2005

Mr. William P. Lovely, Jr. U.S. Environmental Protection Agency EPA New England One Congress Street, Suite 1100 Boston, Massachusetts 02114-2023

Re: GE-Pittsfield/Housatonic River Site
Newell Street Area II (GECD450)
Subsurface Investigation Summary Report

Dear Mr. Lovely:

Between September 15 and November 22, 2005, in response to the discovery of buried drums and capacitors during ongoing soil remediation activities, the General Electric Company (GE) conducted several subsurface investigations within the Newell Street Area II Removal Action Area (RAA) located in Pittsfield, Massachusetts (Figure 1). These investigations consisted of: 1) non-intrusive geophysical surveys, including electromagnetic (EM), magnetometer, and ground penetrating radar (GPR); and 2) test trenching activities. Proposals for the geophysical surveys and test trenching activities were presented to the U.S. Environmental Protection Agency (EPA) in letters from GE dated September 6, 2005 and October 31, 2005, respectively. These documents were conditionally approved by the EPA in letters to GE dated September 14, 2005 (geophysical surveys) and November 9, 2005 (test trenching activities). This Subsurface Investigation Summary Report summarizes the results of the completed geophysical surveys and test trenching activities.

#### A. Non-Intrusive Geophysical Surveys

This section summarizes the geophysical surveys that were conducted at Newell Street Area II between September 15 and October 11, 2005. In accordance with GE's September 6, 2005 proposal and EPA's September 14, 2005 conditional approval letter, these surveys were conducted at Parcel J9-23-8 and those areas west of that parcel (other than Parcel I9-7-1) where soil excavation activities were previously proposed by GE and approved by EPA. These surveys used multiple geophysical techniques that in combination can identify areas where drums and/or other objects may be present in subsurface materials. This multi-technique survey approach was implemented to produce several data sources to account for potential interferences (i.e., power lines, fences, etc.) and limitations associated with the individual techniques. The geophysical methods included EM and magnetometer surveys to assess the potential presence of metallic objects in the subsurface, and GPR to provide radar images of the subsurface anomalies identified by the EM and magnetometer surveys. A summary of the geophysical surveys was previously included in GE's October 31, 2005 test trenching proposal. A more detailed discussion of these surveys and findings is provided below.

#### EM Survey Procedures and Results

The EM survey was performed between September 15 and September 19, 2005 using a Geonics EM-61 time-domain metal detector equipped with a digital data logger and a Trimble AG-132 Global Positioning System (GPS). This technique allows for the differentiation of subsurface metallic objects from surface features which could otherwise interfere with the survey (i.e., buildings, power lines, and fences). The operation of this instrument is based on the emission, or pulse, of a time-varying magnetic field generated from an alternating current at the transmitter. After each pulse, secondary electromagnetic fields are induced briefly into the earth, and for a longer time in metallic targets. Between each pulse, the EM-61 pauses until the response from the earth dissipates and then measures the prolonged response received from buried metallic objects in millivolts (mV). Due to uneven topography within the site (resulting from the ongoing soil excavation work), data were collected using both manual and survey wheel modes of collection.

The EM-61 response represents the potential for surface and buried metal to be located within the upper 15 feet of subsurface materials within the survey area. The survey was performed using a maximum grid spacing of approximately 10 feet to provide coverage across the investigation area. The survey area and EM data points are shown on Figure 2.

EM data from the bottom coil (also known as Channel 2), and the top coil (Channel 1) were used to calculate the differential (Channel D) response, which is one of most common methods of interpretation of EM data (Geonics, 1995). The Channel D data are calculated by the EM data reduction program (DAT61MK2, version 2.20, 2004) in the following manner:

Channel D = k \* (Channel 1 - Channel 2).

#### Where:

- D is the differential output in millivolts (mV)
- Channel 1 is the output from the top coil in mV
- Channel 2 is the output from the bottom coil in mV, and
- k is a depth coefficient normally set to 1

Anomalies were identified in the investigation area by mapping the Channel D response onto the site plan, thus generating a series of response contours. These results are shown on Figure 3. In general, areas with a Channel D response of 100mV or greater or with negative response values below -300 mV were considered elevated. Certain of these identified anomalies were attributable to the presence of the above-ground (fences, high tension towers) and below-ground (storm and sanitary sewers) site features containing various types of metal. Data generated during these activities are provided on Compact Disk No. 1 (Attachment A).

#### Magnetometer Survey Procedures and Results

The magnetometer survey was performed to detect buried ferrous metal objects. The magnetometer operates on the principle of measuring the earth's magnetic field and deviations in this field caused by the presence of ferrous metal objects. The intensity and variation caused by such objects are affected by the depth and mass of the buried object and, to a lesser degree, the orientation of the object. The magnetometer survey was performed on September 20, 2005, using a Geometrics G-858 portable cesium magnetometer equipped with a Trimble AG-132 GPS.

The magnetometer was calibrated (adjusted) to a value of 31,500 nanoTeslas (nT) before survey activities began to account for the earth's magnetic field in the project area. A base station measurement location was established northeast of the investigation area to determine the daily fluctuations (diurnal) in the earth's magnetic field during the field survey. Base station measurements were collected every 40 minutes (on average) using the same Geonics G-856 magnetometer, with the resulting field data corrected for diurnal variations. These measurements are presented in Table 1.

The field survey was performed using an approximate 10-foot grid system established over north and south investigation areas as shown on Figure 4. The start and end points of the survey lines in both areas were surveyed using a differential GPS. The Trimble AG-132 GPS provided location data for the magnetometer during the survey, while magnetometer readings were collected at one second intervals along the survey lines. Data were recorded and stored in the memory of the magnetometer with the associated GPS location data. Base station measurements were recorded during the field survey to correct for diurnal variation during the field survey. The corrected field data for both grid areas (north and south) are included in a table provided in Compact Disk No. 1 (Attachment A).

The corrected total magnetic field measurements were plotted and contoured to evaluate magnetic anomalies representative of buried ferrous metal. The magnetometer data were processed and corrected for diurnal variation using MAGMAP 2000, Version 4.2b (Geometrics, 2001). The corrected total field data were contoured using Surfer, Version 8.00 (Golden Software, 2002), and are shown on Figure 5.

In general, areas with a total field response above 54,000 nT or below 51,500 nT were interpreted as elevated and having the greatest likelihood of containing ferrous metal. As with the EM survey, several magnetic anomalies were attributable to above-ground (fences, high tension towers) and below-ground (storm and sanitary sewers) site features containing ferrous metal. These anomalies and their associated site features are shown on Figure 5.

#### Ground-Penetrating Radar Survey Procedures and Results

Based on the results of the EM and magnetometer surveys, GE, in consultation with EPA, identified four target areas (all located on Parcel J9-23-8) within the overall survey areas as appropriate for the performance of the GPR survey. The objective of the GPR survey was to further assess anomalies identified during the EM and magnetometer surveys. The GPR survey target areas were presented to EPA and are shown on Figures 3, 5, 6, and 7.

GPR equipment transmits high frequency electromagnetic waves into the ground and detects energy reflected back to the surface. Energy is reflected along subsurface interfaces that possess different electrical properties. Reflections typically occur at lithologic contacts or when the electromagnetic waves encounter subsurface materials having high electrical contrasts, including metal objects such as underground storage tanks, drums, and utility pipes. These reflections are detected by the antenna and processed into an electrical signal, which can then be used to image the subsurface feature.

The GPR survey was performed between October 6 and October 11, 2005, using a Subsurface Interfacing Radar (SIR) System-2000, manufactured by Geophysical Survey Systems, Inc. (GSSI). The equipment consisted of:

- 1. A 200-megahertz (MHz) antenna;
- 2. A digital control unit equipped with a color monitor; and
- 3. A 12-volt power supply and survey wheel/cart.

Initial calibration of the GPR system and antenna was performed using subsurface soil boring information and observed response of the analog signal. Calibration of the 200 MHz antenna was completed using the GSSI 200 D setting, adjusting the range and dielectric constant parameters to the approximate subsurface conditions at the site. Using a range of 70 to 80 nanoseconds (nS), and a dielectric constant of 12, the observed depth penetration of the GPR signal was approximately 8 to 12 feet below ground surface (bgs) over the site.

A temporary control grid was established over the four target survey areas and referenced to the site plan using a baseline established from site features. Once established, the four survey areas were staked and later located using differential GPR survey methods. GPR survey lines were located at intervals of approximately 10 feet in Area 1, and at intervals of approximately 5 feet in Areas 2, 3, and 4. Line locations for the GPR survey in these areas are shown on Figure 6. A total of 31 GPR survey lines were completed in Area 1, with survey lines varying in length from approximately 23 to 170 feet. Survey Areas 2, 3, and 4 were smaller in size, with four to six GPR lines per area that ranged in length from approximately 20 to 65 feet. The GPR data were reviewed in real time on the color monitor and stored in the digital control unit.

The GPR survey data were evaluated using RADAN for Windows NT, Version 4.0. Post-processing of the data was limited to gain adjustments and filtering (background removal) when necessary. The GPR data were printed for each survey line, and subsurface features of interest (if present) were marked on these profiles. These GPR profiles are provided as bitmap images on Compact Disk No. 2 (Attachment B) with this report. A summary of the subsurface features identified on the GPR profiles is presented in Table 2 and summarized on Figure 7.

#### B. Completed Test Trenching Activities

This section summarizes the test trenching activities that were conducted in portions of Parcel J9-23-8 between November 10 and November 22, 2005. These activities were conducted in accordance with GE's October 31, 2005 test trenching proposal and EPA's November 9, 2005 letter conditionally approving that proposal. The scope of test trenching activities was developed based on the results of the geophysical surveys described above, as well as input provided by EPA, to better understand the nature of the detected subsurface anomalies identified by the geophysical surveys and to determine whether such anomalies were indicative of buried drums. In total, test trenching activities included the excavation of 18 trenches totaling approximately 1,000 linear feet. Trench locations are shown by number (i.e., Test Trenches 1 through 18) on Figures 3, 5, 7, and 8. These trenches were all excavated in areas where soil removal had already been performed and which had not yet been backfilled.

- Information recorded during test trenching activities is provided on a trench-by-trench basis on Tables 3 through 20. Such information includes the following:
- Date, start/stop time, trench number, and equipment used;
- Trench dimensions i.e., overall length, width, and depth;
- Depth to groundwater, if encountered;
- Visual observations of the materials excavated from each trench, including type, approximate in-situ location/depth, and related observations;
- Visual observations of the sidewalls and end walls (for instances when this information was able to be safely obtained given the depth of the trench);

- Observations of any drums, capacitors, or drum/capacitor parts encountered, including specific location within the trench, depth, and quantity; and
- Observations of other objects (including locations and depths) that could have contributed to the anomalies identified during the geophysical surveys.

The above information was recorded at various stations along each trench. Each station associated with a particular trench is identified on Tables 3 through 20. The location of each station is shown on Figure 8. Note that in all cases, since the test trenching activities were performed in areas that had previously been excavated as part of the soil remediation, the information included in the summary tables (concerning the depths of the trenches and corresponding observations) is relative to subgrade conditions resulting from those completed excavations (rather than relative to the original surface grade). For example, the 0- to 2-foot depth increment notation in the test trench summary tables refers to that increment beginning at the top of the trench and extending downward a depth of 2 feet.

Generally, each trench was advanced vertically downward until groundwater or native materials were encountered. Once the trench was completed, certain excavated soils and other materials were placed back into the trench in accordance with EPA's conditional approval letter of the test trenching proposal, and with concurrence from EPA's on-site representative; these materials were placed at the approximate location and depth from which they were removed. All other materials were stockpiled adjacent to the trench on top of and covered by polyethylene sheeting and will be subject to appropriate off-site disposal. In instances where additional fill material was necessary to backfill test trenches, clean fill was used to complete backfilling activities.

As indicated on Tables 3 through 20, drums and/or capacitors were observed in 16 of the 18 test trenches. Specifically, drums were observed in 11 trenches while capacitors were observed in 14 trenches. Generally, the depth at which these materials were observed ranged from 0.8 feet to approximately 3.5 feet below the top of the trench. A total of 83 drums or drum carcasses were removed during test trenching activities. Of these drums, one was observed to contain free liquid and was therefore overpacked and sent to GE's on-plant hazardous waste storage facility for characterization of its contents to facilitate the appropriate off-site disposal of this drum. A summary of the drum and capacitor observations is provided in Table 21.

#### C. Future Activities

GE is currently arranging for the appropriate off-site disposal of the above-referenced materials that were not placed back into the trenches. GE is also currently arranging for the appropriate off-site disposal of the above-referenced overpacked drum.

Based on the findings of the completed activities as described above, GE is currently developing a proposed scope of additional removal activities within Parcel J9-23-8 and will discuss those activities with EPA.

Please contact me if you have questions or comments concerning the activities described above.

Sincerely,

Andrew T. Silfer, P.E. GE Project Coordinator

Attachments

V.VGE\_Pittsfield\_CD\_Newell\_St\_Area\_IT/Reports and Presentations\Subsurface Rpt 12-05/74052196Ltr.doc

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**Public Information Repositories** 

GE Internal Repositories

(\* with attached disks)

# **Tables**



# TABLE 1 SUMMARY OF MAGNETOMETER BASE STATION DATA

# NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Date	Time	X-Coordinate	Y-Coordinate	Reading	Line	Mark
09/20/05	13:03:30	-73.2348725	42.44852995	52910.2	18	3
09/20/05	13:50:30	-73.2348725	42.44852995	52878.6		
09/20/05	14:40:30	-73.2348725	42.44852995	52964		
09/20/05	15:25:30	-73.2348725	42.44852995	52938.6		
09/20/05	16:15:30	-73.2348725	42.44852995	52975		••
09/20/05	17:07:30	-73.2348725	42.44852995	53001.7		
09/20/05	17:32:30	-73.2348725	42.44852995	52965.6		
09/20/05	18:20:30	-73.2348725	42.44852995	52962.1		
09/20/05	18:50:30	-73.2348725	42.44852995	52990.4		

#### TABLE 2 SUMMARY OF GPR DATA BY AREA

# NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

#### Area 1

Line Number	GPR File	Interpreted Features	V			ion (ft) Approx. Depth		
A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Number			yng i	-ine	Appr		Depth
0	123	None		Τọ			To	**
10	124	Metal Debris	25	To	30	5	To	6
10	124	Metal Debris	40	_To	45	5	To	6
20	125	Metal Debris	19	To	29	5	Τo	6
30	126	Buried Metal Debris	27	To	34	1,5	To	6
40	127	Metal Debris	30	То	40	1.5	Τo	6
50	128	Metal Debris	35	To	50	2	Τo	5
50	136	None		To		<u> </u>	Τo	
60	129	Metal Debris	20	Ťο	50	3	To	6
60	137	Metal Debris	54	To	56	2	To	3
70	138	Shallow Metal	3	To	20	1_	Τo	1.5
70	130	Metal Debris	50	To	30	1.5	To	6
80	131	Metal Debris	22	To	28	1.5	Τo	6
80	131	Metal Debris	40	To	50	1.5	To	6
80	139	Shallow Metal Debris	50	To	75	1.5	To	3
N1	132	Metal Debris	. 5	To	60	4	Τo	8
N1	132	Metal Debris	70	To	85	4	Τo	8
N2	133	Metal Debris	50	To	20	2	To	6
N2	134	Metal Debris	20	To	0	2	To	6
N3	135	Metal Debris	10	To	20	1.5	To	5
N3	135	Metal Debris	50	To	55	1.5	To	5
90	140	Metal Debris	ō	То	35	1.5	To	6.5
		Metal Debris - (possible intact drum @	<u> </u>			├──		
100	141	22 ft, 1.5 ft deep)	20	To	35	1.5	Τo	6
110	144	Possible Metal Debris Along Line		То			To	
		(Gains High)	<u> </u>					
120	145	Metal Debris	38	Tο	40	5	To	6_
120	145	Metal Debris	0	Τo	30	5	To	6
130	146	Poor Data (noisy)	NA.	To	NA_	NA	To	NΑ
130	147	Poor Data (noisy)	NA	To	NA	NΑ	To	NΑ
140	148	Poor Data (noisy)	NA	То	NA	NA	Τo	NΑ
150	149	Numerous Metal Targets	0	Τo	74	_3	Τo	6
150	149	Scattered Metal Debris	80	Τo	125	2	To	6.5
160	150	Metal Debris (inside excavation)	_53_	To	82	2	То	6
160	150	Metal Debris with Possible Targets	0	Τo	47	1.5	Τo	7_
170	151	Metal Debris	0	Τo	15	1.5	То	6
170	151	Metal Debris	35	To	48	1.5	Τọ	6
170	151	Shallow Metal Debris (in excavation)	55	To	95	1	To	3
170	151	Shallow Metal Debris	125	To	140	1	To	3
180	152	Numerous Metal Targets	135	ŢО	158	2	To	7
180	152	Numerous Metal Targets	60	To	100	2_	To	7
180	152	Numerous Metal Targets	0_	To	47	2	To	6
190	153	Metal Debris	0	To	30	2	Τo	6
190	154	Metal Debris with Possible Targets	75	To	110	3	То	6
		(in excavation)					_	
190	155	Shallow Metal Debris (access road)	135	10	170	1	Τo	3
200	157	Metal Debris with Possible Targets (in excavation)		То			То	••
200	158	Metal Debris with Possible Targets (in excavation)	70	То	115	2	То	7
200	158	Metal Debris with Possible Targets (access road)	130	To	155	5	То	7.5
210	159	Metal Debris with Possible Targets (in excavation)	55	To	85	2	To	7
210	159	Metal Debris with Possible Targets (access road)	120	То	142	1.5	To	6.5
220	160	Metal Debris with Possible Targets (in excavation)	40	То	90	2	То	7
220	160	Metal Debris with Possible Targets (access road)	100	То	128	5	To	8

#### TABLE 2 SUMMARY OF GPR DATA BY AREA

# NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

#### Area 1 Continued

Line Number	GPR File	The Parkey Standard Com	Locati Along Line			ion (ft)		
Tips Mounder	Number	Interpreted Features				Approx. Dep		Depth
230	161	Metal Debris with Possible Targets (in excavation)	35	Τo	75	2	To	7
230	161	Metal Debris with Possible Targets (access road)	95	To	113	3	Τo	7
240	162	Metal Debris with Possible Targets (access road)	83	To	92	5	То	7
250	163	No Data		То			То	
260	163	Metal Debris with Possible Targets (in excavation)	20	То	50	2	То	7
270	164	Metal Debris with Possible Targets	5	To	37	3	То	7

#### Area 2

Line Number	GPR File	fud- and all Pandaman	11.2	- 1	_ocat	lon (f	on (ft)		
Line Number	Number	Interpreted Features		Along Line			Approx. Depth		
0	166	Metal Debris with Targets	0	Τo	40	2	To	6	
5	167	Metal Debris with Targets	0	Τo	40	2	To	6	
10	169	Metal Debris with Targets	10	To	50	2	To	6	
15	170	Metat Debris (snallow)	10	To	50	1	Τo	3	
15	170	Metal Debris with Targets	10	Το	50	4	To	5	
20	171	Metal Debris (shallow)	10	Τo	20	1	To	3	
25	172	Metal Debris with Targets	10	To	40	3	To	6	

#### Area 3

Line Number	GPR File	Interpreted Features	Location (ft)					
ZIM NUMBER	Number	incipieted reattles	Along Line			Approx. Depth		
0	173	None_		To			Τо	
5	174	Scattered Metal Debris	3	To	3	3	Τo	6
5	174	Scattered Metal Debris	15	Τo	15	3	To	6
10	175	Scattered Metal Debris	10	To	15	1.5	To	4
15	176	Metal Debris with Targets	0	To	20	1.5	To	6
20	178	Metal Debris	12	To	19	3	Τo	6
25	179	None	-	To			To	

#### Area 4

Line Number	GPR File	Interpreted Features	$-d^2 g = \frac{1}{22}$			ion (ft)		
Cale (401104)	Number	ि । विकास महाराष्ट्र विकास महिन्द्र महिन्द्र ।		ong L	.Ine	Арр	rox. C	<b>Pepth</b>
0	180	Fill Material with Metal Debris	25	Τo	45	3	Τo	5
5	-	No Data (blank @ 5ft)	-	Το	-		To	
10	181	Shallow Metal Debris	10_	To	45_	1_1	To	3_
15	182	Fill Material with Metal Debris	30	To	65	3	To	_5

#### Summary

Area		/erage pth (ft)
1	 2.45	To 5.97
2	 2.14	To 5
3	 2.4	To 5.6
4	 2.33	To 4.33

Notes:

1. NA - Not Available

2. -- Not Applicable

#### TABLE 3 SUMMARY OF OBSERVATIONS AT TEST TRENCH 1

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

				Contractor:	D.A. Collins	Start Time:	11/10/05 - 12:30
Project	Name:	;	Newell Street Area II	Surface Elevation	979.58 to 979.88	End Time:	11/10/05 - 15:30
				Range:		Trench Dimensions	
Location	₋ocation:		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	37, 2.5, 8.5
LUCAUO			Fittsheid, Massachusetts	Equipment. CAT 3200		On-Site Observer:	Paul Filippetti
	ation (			Sur	nmary of Visual Obse	rvations	
From		То					<u> </u>
0	-	0				v this interval appeared to be nativ	
0	-	9	Layer of capacitors in the 0-1	to 0.8-foot interval termina	ates. Material does not	look native, but contains no capac	itors.
9	\	12	The 0- to 3-foot interval cons	ists primarily of non-native	e fill material. No capac	citors at this interval.	
12	-	17	Fill material extends to the 0-	to 5-foot interval, but cor	itains no capacitors.		
17	-	24	Active sewer main encounter	ed.			
24	-	29	Fill/non-native material encor	untered around a portion	of the active sewer mai	n.	
29	-	31	Non-native fill material tapers	s up to the 0- to 4-foot inte	erval. No capacitors in t	his general area.	
31	-	37	End of trench.				

- 1. Ground water observed 8.5 feet below top of trench.
- 2. In general, native soils were observed six feet below ground surface.
- 3. Excavated soils were segregated in three (3) foot intervals (i.e., 0'-3', 3'-6', and 6'-8.5'). Soils were replaced to the same intervals from which they were removed.
- 4. Capacitors removed from this trench were sorted and placed with stockpiled capacitor-containing soils from other trenches awaiting characterization and disposal.

### TABLE 4 SUMMARY OF OBSERVATIONS AT TEST TRENCH 2

# NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

				Contractor:	D.A. Collins	Start Time:	11/14/05 - 10:30		
Project	Name:		Newell Street Area II	Surface Elevation	980.00 to 980.87	End Time:	11/14/05 - 13:30		
				Range:	300.00 to 360.67	Trench Dimensions			
Locatio	n·		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	95, 2.5, 8.5		
	•••		Tittsheid, Massachusetts	_ Lqaipineitt.	——————————————————————————————————————	On-Site Observer:	Paul Filippetti		
St	ation (	ft)		Sui	mmary of Visual Obse	rvations			
From	·	То	1						
			Capacitors uncovered in the (	)- to 2-foot interval. The	2- to 3-foot interval cons	sists primarily of non-native grey sa	and/silt, but contains no		
0	-	0	capacitors. The 3- to 6-foot in	terval consists primarily	of non-native material, b	out contains no capacitors. Native s	sand located below six		
}			feet.						
0	-	8	Capacitor layer continues in the	ne 0- to 2-foot interval. F	ill includes capacitor pa	rts.			
8	-	15	The 0- to 2-foot interval conta	ins capacitor parts and r	niscellaneous metal obj	ects.			
15	-	20	The 0- to 2-foot interval conta	ins capacitor parts and r	niscellaneous metal obj	ects.			
20	.	26	Drum parts uncovered in the	0- to 3-foot interval. The	3- to 6-foot interval con-	tains fill material, but no signs of di	rums or capacitors. Fill		
20		20	material consists primarily of	concrete and metal debr	is.				
26	-	28				onsists primarily of miscellaneous	concrete and steel fill.		
28	-	33	Drum parts found in the 0- to						
33	] . ]	42	. ,			onsists primarily of miscellaneous	concrete and metal fill.		
	1 [		The 6- to 8-foot interval is nat		found in 0- to 3-foot or 3	3- to 6-foot intervals.			
42	-	45	Two (2) drums uncovered in t						
45	l . J	50				nd drum parts. The 3- to 6-foot into	erval consists primarily of		
'`		••	non-native material containing						
50	l <sub>-</sub> i	55			-	nd drum parts. The 3- to 6-foot into	erval consists primarily of		
		•••	non-native material containing						
55	} - }	60			•	nd drum parts. The 3- to 6-foot into	erval consists primarily of		
•	i	••	non-native material containing						
60	.	65				nd drum parts. The 3- to 6-foot into	erval consists primarily of		
••	1 1		non-native material containing						
65	-	70				nd drum parts. The 3- to 6-foot into	erval consists primarily of		
*-			non-native material containing						
70	.	75	1		•	nd drum parts. The 3- to 6-foot inte	erval consists primarily of		
	[		non-native material containing						
75	.	80				nd drum parts. The 3- to 6-foot into	erval consists primarily of		
	لــــــــــــــــــــــــــــــــــــــ		non-native material containing	concrete and miscellar	eous steel. The 6- to 8-	toot interval is native sand.			

### TABLE 4 SUMMARY OF OBSERVATIONS AT TEST TRENCH 2

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

1				Contractor:	D.A. Collins	Start Time:	11/14/05 - 10:30
Project	Name:	:	Newell Street Area II	Surface Elevation	980.00 to 980.87	End Time:	11/14/05 - 13:30
				Range:	900.00 (0 900.07	Trench Dimensions	
Location:			Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	95, 2.5, 8.5
Locatio	_ocation:		Fittsheld, Massachusetts	Edaibment.	CA1 3200	On-Site Observer:	Paul Filippetti
From	Γ_	To	_		nmary of Visual Obse	, valvons	
From 80		<b>To</b> 85	The 0- to 3-foot interval cons	ists primarily of fill contain	ning a variety of metal a	and drum parts. The 3- to 6-foot int	erval consists primarily
80	-	00	of non-native material contain	ning concrete and miscell	aneou <u>s st</u> eel. The 6- to	8-foot interval is native sand.	<u> </u>
85	1	90	The 0- to 3-foot interval cons	ists primarily of fill contain	ning a variety of metal a	and drum parts. The 3- to 6-foot int	erval consists primarily
65	]	30	of non-native material contain	ning concrete and miscell	aneous steel. The 6- to	8-foot interval is native sand.	
90	-	95	End of trench.				

- 1. Ground water observed 8.5 feet below top of trench.
- 2. Native soils found six feet below top of trench.
- 3. Four (4) drums uncovered in the 0- to 3-foot interval during trenching activities. None of the drums were observed to contain free liquids,

### TABLE 5 SUMMARY OF OBSERVATIONS AT TEST TRENCH 3

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

			<del></del>	Contractor:	D.A. Collins	Start Time:	11/14/05 - 13:30
Project I	Name:	;	Newell Street Area II	Surface Elevation	979.57 to 979.68	End Time:	11/14/05 - 15:00
				Range:	3/3.3/ (0 3/3,06	Trench Dimensions	
Location	n.		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	27, 2.5, 5.5
Location			- Ittoricia, massacriasetts	Equipment.		On-Site Observer:	Paul Filippetti
Sta	ation (	ft)		Sun	nmary of Visual Obse	rvations	
From		To					
0	-	0	The 0- to 3-foot interval conta 3- to 5.5-foot interval is native	•	parts, and other misce	llaneous metal parts. Material is no	on-native in nature. The
0	-	10	The 0- to 3-foot interval conta 3- to 5.5-foot interval is native		parts, and other misce	llaneous metal parts. Material is no	on-native in nature. The
10	-	20	The 0- to 3-foot interval conta 3- to 5.5-foot interval is native		parts, and other misce	llaneous metal parts. Material is no	on-native in nature. The
20	-	25	3- to 5.5-foot interval is native	e sand.		llaneous metal parts. Material is no	
25	.	27	The 0- to 3-foot interval conta 3- to 5.5-foot interval is native		parts, and other misce	llaneous metal parts. Material is no	on-native in nature. The

- 1. Ground water observed 5.5 feet below top of trench.
- 2. All capacitors uncovered along entire stretch of trench in the 0- to 3-foot interval.

### TABLE 6 SUMMARY OF OBSERVATIONS AT TEST TRENCH 4

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

			<del></del>	Contractor:	D.A. Collins	Start Time:	11/15/05 - 08:15
Project	Name:	:	Newell Street Area II	Surface Elevation	979.84 to 980.77	End Time:	11/15/05 - 12:00
				Range:	513.04 (0 300.11	Trench Dimensions	
Location	n'		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	88, 2.5, 8
			Tittaneta, massacriusetts	Equipment.		On-Site Observer:	Paul Filippetti
St	ation (	(ft)		Sui	nmary of Visual Obse	rvations	
From		To	1 .				
0	-	0	The 0- to 3.5-foot interval cor consists primarily of fill mater		•	steel/metal, and insulators. The 3 cated at six feet.	.5- to 6-foot interval
0	-	9				itors and miscellaneous metal deb lo capacitors found in this interval.	
9	-	17	Five (5) drums uncovered in and contains concrete and be		-	in this interval. The 3.5- to 6-foot in	nterval is stained black
17	-	24	Four (4) drums uncovered in	the 0- to 3.5-foot interval	. Capacitor parts found	in this interval.	
24	-	28	Two (2) drums uncovered in	he 0- to 3.5-foot interval.	The 3.5- to 6-foot inter	val contains non-native black-stair	ned material.
28	` - `	31	Three (3) drums uncovered in	the 0- to 3.5-foot interva	al. Capacitors found in t	this interval.	·
31	-	37	One (1) drum uncovered in the interval consists primarily of the consi		Capacitors and various	metal objects found in this interva	l. The 3.5- to 6-foot
37	-	47	Two (2) drums uncovered in	he 0- to 3.5-foot interval.	The 3.5- to 6-foot inter	val consists primarily of fill.	
47	-	60	Capacitors and capacitor par	ts uncovered in the 0- to	3.5-foot interval.		
60	-	70	Five (5) drums uncovered in or capacitors observed.	the 0- to 3,5-foot interval.	The 3.5- to 6-foot inter	val contains miscellaneous concre	ete and metal. No drums
70	- :	80	Three (3) drums uncovered in				
80	-	88				citors observed. The 3.5- to 6-foot round water at eight feet. End of tr	

- 1. Ground water observed eight feet below top of trench.
- 2. Twenty-six (26) drums uncovered and several capacitors in the 0- to 3.5-foot interval during trenching activities. None of the drums were observed to contain free liquids.
- 3. One (1) drum observed in the sidewalls of trench near ground surface during trenching activitites.
- 4. No drums or capacitors found deeper than 3.5 feet below top of trench.

### TABLE 7 SUMMARY OF OBSERVATIONS AT TEST TRENCH 5

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

			- <u> </u>	Contractor:	D.A. Collins	Start Time:	11/15/05 - 12:45			
Project !	Name:		Newell Street Area II	Surface Elevation	979.38 to 979.58	End Time:	11/15/05 - 15:00			
	_			Range:	919.36 (0 919.36	Trench Dimensions				
Location	n·		Pittsfield, Massachusetts	Equipment: CAT 320C	CAT 320C	(length, width, depth) (feet):	61, 2.5, 8			
Location	···		Pritisherd, Massacridsetts Equipment: CAT 320C On-Site Observer:							
St	Station (ft)		Summary of Visual Observations							
From		To	<u></u>							
0	-	0	consists primarily of non-nativ	ve fill. Material contains naterial and entire interv	miscellaneous metal an	sandy and grey/silver in color. The d ceramic matter. The 6- to 7-foot 7- to 7.5-foot interval consists prim	interval consists primarily			
0	: 	10	consists primarily of non-nation of non-native fill with woody r	The 0- to 3-foot interval is non-native with no capacitors or drums. Material is sandy and grey/silver in color. The 3- to 6-foot interval consists primarily of non-native fill. Material contains miscellaneous metal and ceramic matter. The 6- to 7-foot interval consists primarily of non-native fill with woody material and entire interval is stained black. The 7- to 7.5-foot interval consists primarily of a layer of organic peat. The 7.5- to 8-foot interval is native green sand.						
10		20	consists primarily of non-nativ	ve fill. Material contains material and entire interv	miscellaneous metal an	sandy and grey/silver in color. The d ceramic matter. The 6- to 7-foot 7- to 7.5-foot interval consists prim	interval consists primarily			
20	-	23	Capacitors uncovered in the primarily of non-native fill. Ma	0- to 2-foot interval. Sur aterial contains miscellar I and entire interval is st	neous metal and cerami	dy and grey/silver in color. The 2-to matter. The 6- to 7-foot interval of 5-foot interval consists primarily of	onsists primarily of non-			
23	-	28	Capacitors uncovered in the primarily of non-native fill. Ma	0- to 2-foot interval. Sur aterial contains miscellar I and entire interval is st	ncous motal and cerami	dy and grey/silver in color. The 2- c matter. The 6- to 7-foot interval of 5-foot interval consists primarily of	onsists primarily of non-			
28	-	38	Capacitors uncovered in the native, but no drums or capa	0- to 3-foot interval. The citors found.		o longer stained black. The materi				
38	-	50	Capacitors uncovered in the native, but no drums or capa		6- to 7-foot interval is n	o longer stained black. The materi	al in this interval is non-			

### TABLE 7 SUMMARY OF OBSERVATIONS AT TEST TRENCH 5

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

				Contractor:	D.A. Collins	Start Time:	11/15/05 - 12:45
Project I	Name:	:	Newell Street Area II	Surface Elevation	979.38 to 979.58	End Time:	11/15/05 - 15:00
				Range:	313.30 (0 313.30	Trench Dimensions	
Location:			Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	61, 2.5, 8
			Fillsheid, Massacitusells	Equipment.	CA1 320C	On-Site Observer:	Paul Filippetti
From		To					
	ation (	<u></u>		Sun	nmary of Visual Obse	rvations	
50		 55				sists primarily of a non-native fill. T	he 4- to 6-foot interval
30						foot interval is green native sand.	
55	-	61				sists primarily of a non-native fill. T foot interval is green native sand. E	
Notes:			·				

<sup>1.</sup> No drums uncovered during trenching activities.

### TABLE 8 SUMMARY OF OBSERVATIONS AT TEST TRENCH 6

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

				Contractor:	D.A. Collins	Start Time:	11/22/05 - 09:45		
Project I	Name:	;	Newell Street Area II	Surface Elevation Range:	978.41 to 979.57	End Time:	11/22/05 - 10:30		
					910.41 (0 919.3)	Trench Dimensions			
Location	n·		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	84, 2.5, 9		
LOCATIO			- Ittaneiu, massaciiusetts	Equipment.	OAT 320C	On-Site Observer:	Andy Roberts		
Sta	ation (	ft)	Summary of Visual Observations						
From		To	7						
0		0	The 0- to 2-foot interval cons	ists primarily of a rust-col	ored fill. The 2- to 3-foo	ot interval consists primarily of a gre	ey/green gravel fill. The		
U	"   -   "		3- to 8-foot interval consists	primarily of a black-staine	d fill material. The 8- to	9-foot interval is native green san	d		
o	ì <sub>-</sub>	20				ot interval consists primarily of a gre			
		20	3- to 8-foot interval consists primarily of a black-stained fill material. The 8- to 9-foot interval is native green sand.						
20		31	1			s primarily of a rust-colored fill. The	e 3- to 8-foot interval		
			consists primarily of a black-						
31		40				val consists primarily of a rust-colo	red fill. The 3- to 7-foot		
-			interval consists primarily of						
40	1 - 1	60				erval consists primarily of a rust-co	blored fill. The 3.5- to 6-		
			foot interval consists primaril						
60	-	65	•		olored till. The 3.5- to 4	I-foot interval consists primarily of	a grey/green till. The		
 			4- to 5-foot interval is native						
65	-	70				-foot interval is native green sand.			
<u>70</u>	1 -	84	The 0- to 3.5-foot interval co	nsists primarily of a rust-o	olored fill. The 3.5- to 4	I-foot interval is native green sand.	End of trench.		

<sup>1.</sup> Four (4) drums uncovered in the 0- to 3-foot interval during trenching activities. None of the drums were observed to contain free liquids.

<sup>2.</sup> Two (2) drums observed in the sidewalls of the trench in the 0- to 3-foot interval during trenching activities.

TABLE 9
SUMMARY OF OBSERVATIONS AT TEST TRENCH 7

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

	<u> </u>		<del>-</del>	Contractor:	D.A. Collins	Start Time;	11/18/05 - 12:30			
Project	Name:		Newell Street Area II	Surface Elevation	980.26 to 980.93	End Time:	11/18/05 - 14:30			
				Range:	900.20 to 900.33	Trench Dimensions				
Location	n·		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	<u>72, 2.5, 7</u>			
Location			Titorioid, massacritasetts	Lquipment	——·——	On-Site Observer:	Paul Filippetti			
Station (ft)		ft)	Summary of Visual Observations							
From		To		_						
Ō	-	0	One (1) drum uncovered in the	e 0- to 1.5-foot interval.	The 0- to 1.5-foot interv	al consists primarily of a rust-color	ed fill.			
0	-	4	One (1) drum uncovered in the	e 0- to 1.5-foot interval.		<u>-</u>	<u> </u>			
4	-	15	The 0- to 4-foot interval cons Native green sand located at		ver sand fill. The 4- to 7	'-foot interval consists primarily of a	a grey/brown gravel fill.			
15	-	20	The 0- to 4-foot interval cons Native green sand located at		ver sand fill. The 4- to 7	-foot interval consists primarily of a	a grey/brown gravel fill.			
20	.	40	<del></del>	sts primarily of a grey/sil	ver sand fill. The 4- to 7	foot interval consists primarily of	a grey/brown gravel fill.			
40	-	45	Capacitors uncovered in the interval.	)- to 1-foot interval. Capa	citors observed in both	sidewalls to a distance of 65 feet	in the 1- to 1.5-foot			
45	} -	52	Product observed coming ou	of eastern trench wall pe	erched in the 6- to 7-foo	ot interval.				
52	-	60	fill. The 3- to 7-foot interval co	onsists primarily of a gree	en/brow <u>n grave</u> l fill. <u>Nat</u>	.5- to 3-foot interval consists prima ive material observed at seven fee	t			
60	-	72	The 0- to 3-foot interval cons Native material observed at s			t interval consists primarily of a bro	wn/grey gravel fill.			

- 1. Two (2) drums uncovered in the 0- to 1.5-foot interval during trenching activities. None of the drums were observed to contain free liquids.
- 2. One (1) drum observed in the sidewalls of trench near ground surface during trenching activitites.
- 3. Capacitors observed between distances 45 and 65 in the 0- to 1.5-foot interval during trenching activities.

### TABLE 10 SUMMARY OF OBSERVATIONS AT TEST TRENCH 8

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

·····				Contractor:	D.A. Collins	Start Time:	11/21/05 - 12:44			
Project !	Name:		Newell Street Area II	Surface Elevation	979.40 to 980.21	End Time:	11/21/05 - 13:40			
				Range:	979.40 (0 900.21	Trench Dimensions				
Location	٠.		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	80, 2.5, 8.5			
LOCALIO	''•			Equipment.	——————————————————————————————————————	On-Site Observer:	Andy Roberts			
Sta	Station (ft)		Summary of Visual Observations							
From		To	]	_						
0		0	material. Perched ground wa	Several drums and capacitors uncovered in the 0- to 3-foot interval. The 0- to 3-foot interval consists primarily of a rust-colored fill material. Perched ground water observed at three feet. The 3- to 7-foot interval consists primarily of a grey/green gravel fill materia 7- to 8.5-foot interval is native green sand.						
0	-	20	material. Perched ground wa 7- to 8.5-foot interval is native	Several drums and capacitors uncovered in the 0- to 3-foot interval. The 0- to 3-foot interval consists primarily of a rust-colored fill material. Perched ground water observed at three feet. The 3- to 7-foot interval consists primarily of a grey/green gravel fill material. 7- to 8.5-foot interval is native green sand.						
20	-	30				sists primarily of a rust-colored fill rey/green gravel fill material. The				
30	-	50				sists primarily of a rust-colored fill rey/green gravel fill material. The				
50	-   -	60		ter observed at three fee		3-foot interval consists primarily ral consists primarily of a grey/gre				
60	-	70	water observed at three feet. native green sand.	The 3- to 7-foot interval	consists primarily of a g	sists primarily of a rust-colored fill rey/green gravel fill material. The	7- to 8.5-foot interval is			
70	-	80	Capacitors uncovered in the	The 3- to 7-foot interval		sists primarily of a rust-colored fill prey/green gravel fill material. The				

- 1. Fourteen (14) drums uncovered in the 0- to 3-foot interval during trenching activities. One drum encountered in trench required overpacking. None of the other drums were observed to contain free liquids
- 2. Capacitors observed throughout the entire 0- to 3-foot interval during trenching activities.
- 3. Perched ground water observed three feet below top of trench.

### TABLE 11 SUMMARY OF OBSERVATIONS AT TEST TRENCH 9

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

				Contractor:	D.A. Collins	Start Time:	11/22/05 - 08:15			
Project I	Name:	;	Newell Street Area II			End Time:	11/22/05 - 08:30			
				Surface Elevation:	979.77	Trench Dimensions				
Location	n'	•	Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	31, 2.5, 9.5			
			Tittoria, massacriasetts	Edoibineur.		On-Site Observer:	Andy Roberts			
Station (ft)			Summary of Visual Observations							
From		To	1							
0	-	0		construction debris. The 5		foot interval consists primarily of a gronning from graving primarily of a grey/green grav				
0	_	10		construction debris. The 5		foot interval consists primarily of a gronsists primarily of a grey/green grav				
10	_	20		a grey/green silt and grave	el material with misc	al consists primarily of a rust-colored ellaneous construction debris. The 5 ative green sand.				
20		25	to 5-foot interval consists pri	marily of a grey/green silt	and gravel material v	<ul> <li>to 2-foot interval consists primarily of with miscellaneous construction debrarily of a grey/green gravel fill. The 9-</li> </ul>	ris. Perched product			
25	-	31	Capacitors uncovered in the	reen silt and gravel mater	ial with miscellaneou	onsists primarily of a rust-colored fill. us construction debris. The 5- to 9-foon sand, End of trench.				

<sup>1.</sup> Four (4) drums uncovered in the 0- to 2-foot interval during trenching activities. None of the drums were observed to contain free liquids.

#### TABLE 12 SUMMARY OF OBSERVATIONS AT TEST TRENCH 10

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

			·	Contractor:	D.A. Collins	Start Time:	11/17/05 - 14:00
Project	Name:		Neweli Street Area II	Surface Elevation	978.74 to 979.11	End Time:	11/17/05 - 15:30
	<del>,</del>			Range:	370.74 (0 373.11	Trench Dimensions	
Location	n:		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	54, 2.5, 4
					——————————————————————————————————————	On-Site Observer:	Paul Filippetti
St	ation (	ft)		Sur	nmary of Visual Obse	rvations	
From		To					
0	-	0	Capacitors observed at grade excavation within trench coul		n the 0- to 2-foot interv	al due to water. Due to water in the	trench, additional
0	-	10	Capacitors observed at grade excavation within trench coul		n the 0- to 2-foot interv	al due to water. Due to water in the	trench, additional
10	-	14				2-foot interval. The 0- to 1-foot in rown fill material. The 2- to 4-foot i	
14	-	20	Capacitors uncovered in the			sists primarily of a grey/silver sand I consists primarily of a grey/green	
20	-	30				sists primarily of a grey/silver sand Il consists primarily of a grey/green	
30	-	40				sists primarily of a grey/silver sand Il consists primarily of a grey/green	
40	-	50				sists primarily of a grey/silver sand Il consists primarily of a grey/green	
50	-	54	End of trench.				

<sup>1.</sup> Due to amount of water entering the trench, native material could not be reached.

<sup>2.</sup> No capacitors observed deeper than two feet below top of trench.

### TABLE 13 SUMMARY OF OBSERVATIONS AT TEST TRENCH 11

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

				Contractor:	D.A. Collins	Start Time:	11/18/05 - 08:00				
Project i	Name:		Newell Street Area II	Surface Elevation	980.63 to 981.94	End Time:	11/18/05 - 11:15				
			<u></u>	Range:		Trench Dimensions					
Location	n·		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	95, 2.5, 12				
2004.101			- Monordy Moderation	Equipment	——————————————————————————————————————	On-Site Observer:	Paul Filippetti				
Sta	Station (ft)			Sur	nmary of Visual Obse	rvations					
From		To									
0		0				st-colored fill. The 1- to 7-foot interv nd ground water encountered at ap					
0	-	20				st-colored fill. The 1- to 7-foot interv nd ground water encountered at ap					
20	-	30				st-colored fill. The 1- to 7-foot interv nd ground water encountered at ap					
30	-	40	Drums and capacitors uncover grey/green silt and gravel fill.			d fill. The 3- to 8.5-foot interval con	sists primarily of				
40	-	60	Drums and capacitors uncover grey/green silt and gravel fill.			d fill. The 6- to 11.5-foot interval co d.	onsists primarily of				
60	-	80	Drums and capacitors uncover grey/green silt and gravel fill.			d fill. The 3- to 8.5-foot interval con	sists primarily of				
80	-	90	Drums and capacitors uncover grey/green silt and gravel fill.	ered in the 0- to 3-foot int The 8.5- to 9-foot interva	terval with a rust-colore il is native green sand.	d fill. The 3- to 8.5-foot interval cor					
90	-	95		ered in the 0- to 3-foot int	terval with a rust-colore	d fill. The 3- to 8.5-foot interval cor End of trench.	sists primarily of				

- 1. Ground water observed 7.5 feet below top of tronch.
- 2. Eighteen (18) drums uncovered in the 0- to 3-foot interval during trenching activities. None of the drums were observed to contain free liquids.
- 3. Rusted capacitors uncovered in the 0- to 3-foot interval during trenching activities.

### TABLE 14 SUMMARY OF OBSERVATIONS AT TEST TRENCH 12

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

				Contractor:	D.A. Collins	Start Time:	11/17/05 - 12:30			
Project	Name:		Newell Street Area II	Surface Elevation	979.09 to 979.73	End Time:	11/17/05 - 14:00			
				Range:		Trench Dimensions				
Location	n:		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	58, 2.5, 6			
						On-Site Observer:	Paul Filippetti			
St	ation (	ft)	Summary of Visual Observations							
From		To								
0	[-]	0				covered in the 1.5- to 3-foot interva val is native material with perched				
0	-	9	Capacitors uncovered in the	0- to 3-foot interval.						
9	-	10	Capacitors uncovered in the interval consists primarily of a			nsists primarily of a grey sand fill.	The 1.5- to 5-foot			
10	-	20	Capacitors no longer observe feet.	ed in the 0- to 3-foot inter	val and becomes a mix	of grey sand from 0- to 1.5-feet an	id dark fill from 1.5- to 3-			
20	-	30	The 0- to 1.5-foot interval cormaterial.	sists primarily of a grey	sand fill and the 1.5- to	3-foot interval consists primarily of	a black-stained fill			
30	-	40	The 0- to 1.5-foot interval cor material.	sists primarily of a grey	sand fill and the 1.5- to	3-foot interval consists primarily of	a black-stained fill			
40	-	50	The 0- to 1.5-foot interval cormaterial.	sists primarily of a grey	sand fill and the 1.5- to	3-foot interval consists primarily of	a black-stained fill			
50	-	58	The 0- to 1.5-foot interval cor material. End of trench	sists primarily of a grey	sand fill and the 1.5- to	3-foot interval consists primarily of	a black-stained fill			

<sup>1.</sup> Perched ground water observed five feet below top of trench.

<sup>2.</sup> Capacitors uncovered in the 0- to 3-foot interval during trenching activities. No capacitors observed deeper than three feet below top of trench.

#### TABLE 15 SUMMARY OF OBSERVATIONS AT TEST TRENCH 13

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

				Contractor:	D.A. Collins	Start Time:	11/17/05 - 08:00		
Project I	Name;		Newell Street Area II	Surface Elevation	981.54 to 981.92	End Time:	11/17/05 - 09:15		
_				Range:	301.34 (0 301.32	Trench Dimensions	<u></u>		
Location	n.		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	43, 2.5, 9.5		
Location			t ittaneid, massachusetts		CAT 3200	On-Site Observer:	Paul Filippetti		
Sta	ation (	ft)		Sui	nmary of Visual Obse	rvations			
From	[	To							
0		0				g fill. The 3.5- to 7.5-foot interval c	onsists primarily of a		
•		Ū				ot interval is native green sand.			
0	_	10	The 0- to 3.5-foot interval consists primarily of a dark-colored metal-containing fill. The 3.5- to 7.5-foot interval consists primarily of a						
•	1 1		light brown fill material with brick and miscellaneous metal. The 7.5- to 9.5-foot interval is native green sand.						
10	_	20				g fill. The 3.5- to 7.5-foot interval o	onsists primarily of a		
						ot interval is native green sand.			
20	-	28	Three (3) drums uncovered in						
28	1 _ 1	30	One (1) drum uncovered in the	ne 0- to 3-foot interval. Th	ne 3- to 7.5-foot interval	consists primarily of a light brown	fill material with brick,		
20	-	30	concrete, and metal debris. I	he 7.5- to 9.5-foot interva	al is native green sand.	<u> </u>			
30		40	The 0- to 3.5-foot interval cor	nsists primarily of a dark!	brown metal-containing	fill. The 3.5- to 7.5-foot interval co	nsists primarily of a light		
30	-	40	brown fill material with brick,	concrete, and metal debi	ris. The 7.5- to 9.5-foot	interval is native green sand.			
40	-	43	End of trench.		·				

<sup>1.</sup> Four (4) drums uncovered in the 0- to 3-foot interval during trenching activities. None of the drums were observed to contain free liquids.

<sup>2.</sup> No capacitors uncovered during trenching activities.

#### TABLE 16 SUMMARY OF OBSERVATIONS AT TEST TRENCH 14

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

			·	Contractor:	D.A. Collins	Start Time:	11/16/05 - 09:00
Project !	Project Name:		Newell Street Area II	Surface Elevation	979.80 to 980.38	End Time:	11/16/05 - 10:30
				Range:	313.00 (0 300.30	Trench Dimensions	
Location	n·		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	25, 2.5, 6
			ritisheid, Massachusetts	Edgibiliaur.	OAT 3200	On-Site Observer:	Paul Filippetti
Station (ft)				Sun	nmary of Visual Obse	rvations	
From	· -	To	1				
0	-	0	Capacitors uncovered in the sand and gravel fill and has a			The 1- to 4.5-foot interval consists een native sand.	primarily of non-native
0	-	2	One (1) drum uncovered in the				
2	-	8	One (1) drum uncovered in the	he 0- <u>to</u> 3-foot interval. No	capacitors observed.		
8	-	10				brown fill material. No drums or ca he 2- to 3-foot interval consists prin	
10	-	25				brown fill material. No drums or ca he 2- to 3-foot interval consists pri	

#### Notes:

1. Two (2) drums and several capacitors uncovered in the 0- to 3-foot interval during trenching activities. None of the drums were observeed to contain free liquids.

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- 2. Capacitors uncovered were very degraded.
- 3. Perched ground water observed 4.5 feet below top of trench.

### TABLE 17 SUMMARY OF OBSERVATIONS AT TEST TRENCH 15

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

rainat Nama:			Contractor:	D.A. Collins	Start Time:	11/16/05 - 14:30
roject Name:		Newell Street Area II	Surface Elevation	979.89 to 979.93	End Time:	11/16/05 - 15:30
			Range:	313.03 10 313.33	Trench Dimensions	
Station (ft)		Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	20, 2.5, 7
		Filisheid, Massachusells	Equipment.	OAT 320C	On-Site Observer:	Paul Filippetti
		Summary of Visual Observations				
0 -	0	The 0- to 4-foot interval cons ground water. The 4- to 7-foo		_	. Thin layer of peat observed at fou	r feet with perched
0 -	9	water. The 4- to 7-foot interva	al is native green sand.		ayer of peat observed at four feet v	
9 -	20	The 0- to 4-foot interval cons water. The 4- to 7-foot interval		nd and gravel fill. Thin I	ayer of peat observed at four feet v	with perched ground

### TABLE 18 SUMMARY OF OBSERVATIONS AT TEST TRENCH 16

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Project Name:			Newell Street Area II	Contractor: Surface Elevation	D.A. Collins 979.69 to 979,98	Start Time: End Time:	11/16/05 - 12:30 11/16/05 - 13:30
		;					
			Pittsfield, Massachusetts	Range: Equipment:	CAT 320C	Trench Dimensions	
Location:						(length, width, depth) (feet):	_ 58, 2.5, 7.5
			- Ittsiieiu, Messachusetts	Equipment.		On-Site Observer:	Paul Filippetti
Station (ft)		(ft)	Summary of Visual Observations				
From		To	]				
0	-	0	Capacitors and capacitor parts uncovered in the 0- to 1-foot interval. The 1- to 5-foot interval consists primarily of a black/green stained fill material. No capacitors uncovered in this interval. The 5- to 5.5-foot interval contains material resembling peat. Perched ground water observed above this layer. The 5.5- to 7.5-foot interval is native black/green-stained sand.				
0	  -	10	Capacitors and capacitor parts uncovered in the 0- to 1-foot interval. The 1- to 5-foot interval consists primarily of a black/green stained fill material. No capacitors uncovered in this interval. The 5- to 5.5-foot interval contains material resembling peat. Perched ground water observed above this layer. The 5.5- to 7.5-foot interval is native black/green-stained sand.				
10	-	20	The 0- to 1-foot interval consists primarily of a rust-colored metal fill. The 1- to 3.5-foot interval consists primarily of a black-stained miscellaneous fill material. The 3.5- to 4-foot interval consists primarily of peat with perched ground water above it. The 4- to 7-foot interval is native green sand.				
20	-	23	The 0- to 1-foot interval consists primarily of a rust-colored metal fill. The 1- to 3.5-foot interval consists primarily of a black-stained miscellaneous fill material. The 3.5- to 4-foot interval consists primarily of peat with perched ground water above it. The 4- to 7-foot interval is native green sand.				
23	-	30	One (1) drum uncovered in the 0- to 2-foot interval. The 0- to 1-foot interval consists primarily of a rust-colored metal fill. The 1- to 2-foot interval is native brown sand.				
30	-	40	The 0- to 1-foot interval consists primarily of a rust-colored metal fill. The 1- to 2-foot interval is native brown sand.				
40	-	42	Native brown sand found at surface.				
42	-	50	Native brown sand found at surface.				
50	-	58	Native brown sand found at surface. End of trench.				

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<sup>1.</sup> One (1) drum uncovered in the 0- to 2-foot interval during trenching activities. Free liquids were not observed in the drum.

<sup>2.</sup> Perched ground water observed five feet below top of trench.

### TABLE 19 SUMMARY OF OBSERVATIONS AT TEST TRENCH 17

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Project Name:			Newell Street Area II	Contractor:	D.A. Collins	Start Time:	11/16/05 - 13:30	
		:		Surface Elevation	980.41 to 980.62	End Time:	11/16/05 - 14:30	
_				Range:	ange:	Trench Dimensions (length, width, depth) (feet):	40, 2.5, 2	
Location:			Pittsfield, Massachusetts	Equipment:				
			Equipment.			On-Site Observer:	Paul Filippetti	
Station (ft)		·	Summary of Visual Observations					
0	_	- 70	The 0- to 2-foot interval is na	ivo brown sand	<del> </del>		·	
ő	}	10	The 0- to 2-foot interval is native brown sand.					
10		20	The 0- to 2-foot interval is native brown sand.					
20	- 1	30	The 0- to 2-foot interval is native brown sand.					
30	-	_ 40	The 0- to 2-foot interval is native brown sand. End of trench.					
Notes:					<u>.                                      </u>	<u></u>		
1 No or	nacita	sec/fill/dec	ims uncovered during trenching	activities				

#### TABLE 20 SUMMARY OF OBSERVATIONS AT TEST TRENCH 18

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Project Name:			Newell Street Area II	Contractor: Surface Elevation	D.A. Collins 980.66 to 980.77	Start Time:	11/16/05 - 07:30 11/16/05 - 09:00
						End Time:	
				Range:	960.66 (0 960.77	Trench Dimensions	<del></del>
Location:			Pittsfield, Massachusetts	Equipment:	CAT 320C	(length, width, depth) (feet):	24, 2.5, 4
Location	···		r ittslield, massacijusetts	Equipment.	CAT 320C	On-Site Observer:	Paul Filippetti
	ation (			Sun	nmary of Visual Obser	vations	
From		To					
0	-	0	The 0- to 2-foot interval consists primarily of a rust-colored fill. No capacitors uncovered in this interval. Fill consists primarily of brick and miscellaneous metal. The 2- to 4-foot interval is stained black, but appears to be native. Native green sand present below four feet.				
0	-	10	The 0- to 2-foot interval consists primarily of a rust-colored fill. No capacitors uncovered in this interval. Fill consists primarily of brick and miscellaneous metal. The 2- to 4-foot interval is stained black, but appears to be native. Native green sand present below four feet.				
10	-	12	One (1) drum uncovered in the 0- to 2-foot interval and one (1) drum observed in sidewall. The 2- to 3-foot interval consists primarily of a peat layer with perched ground water. The 3- to 4-foot interval is native green sand.				
12	-	16	Two (2) drums uncovered in the 0- to 2-foot interval. The 2- to 3-foot interval consists primarily of a peat layer with perched ground water. The 3- to 4-foot interval is native green sand.				
16	-	19	One (1) drum uncovered in the 0- to 2-foot interval and one (1) drum observed in sidewall.				
19		24	The 0- to 2-foot interval consists primarily of a rust-colored fill. The 2- to 3-foot interval consists primarily of a peat layer. The 3- to 4-foot interval is a native green sand. End of trench.				

- 1. Perched ground water observed three feet below top of trench.
- 2. Four (4) drums uncovered in the 0- to 2-foot interval during trenching activities. None of the drums were observed to contain free liquids.
- 3. Two (2) drums observed in the sidewalls of trench in the 0- to 2-foot interval during trenching activities.
- 4. No capacitors were uncovered during trenching activities.

### TABLE 21 SUMMARY OF TEST TRENCH RESULTS

### NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

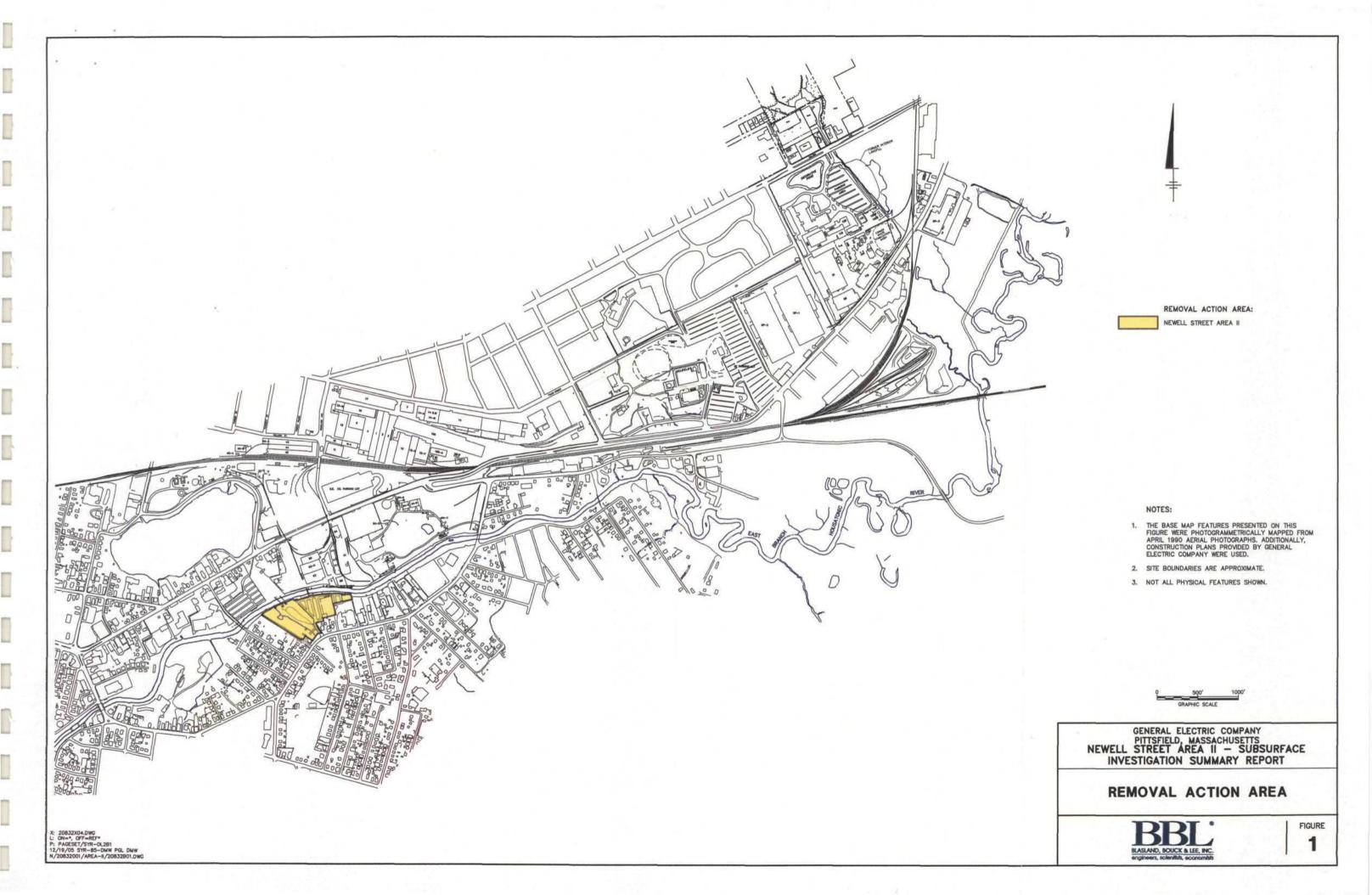
Trench Number	Capacitors Encountered ? (Yes / No) (depth in feet)	Number of Drum(s) Removed (depth in feet)
1	Yes (0-0.8')	NONE
2	Yes (0-2')	4 (0-3')
3	Yes (0-3')	NONE
4	Yes (0-3.5')	26 ((-3.5')
5	Yes (0-3')	NONE
6	No	4 (0-3')
7	Yes (0-1.5')	2 (0-1.5')
8	Yes (0-3')	14 (0-3')
9	Yes (0-2')	4 (0-2")
10	Yes (0-2')	NONE
11	Yes (0-6')	18 (0-6')
12	Yes (0-3')	NONE
13	No	4 (0-3')
14	Yes (0-3')	2 (0-3')
15	No	NONE
16	Yes (0-1')	1 (0-2')
17	No	NONE
18	No	4 (0-2')

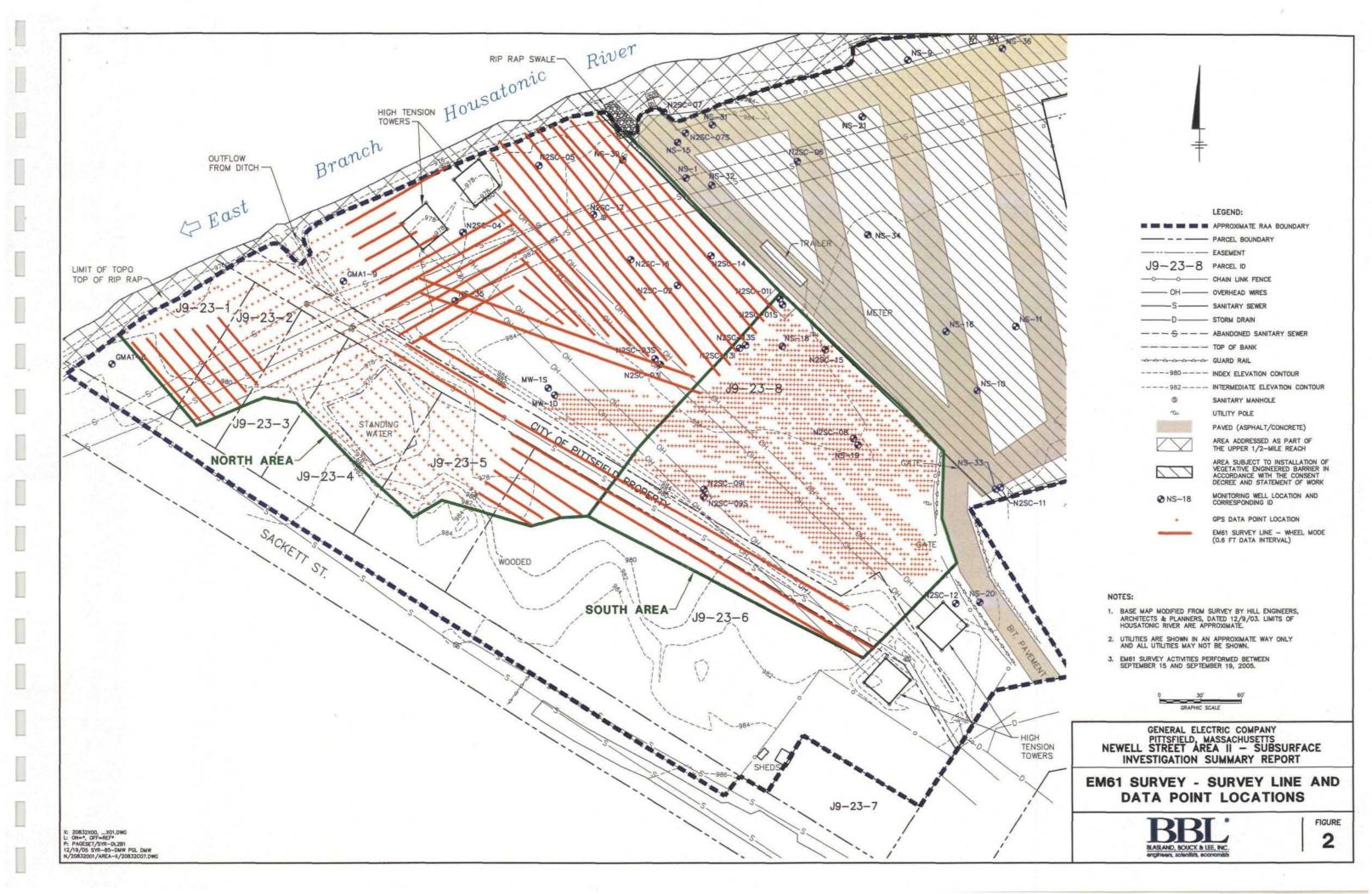
<sup>1.</sup> The majority of drums encountered contained no free liquid; therefore, no overbacking required.

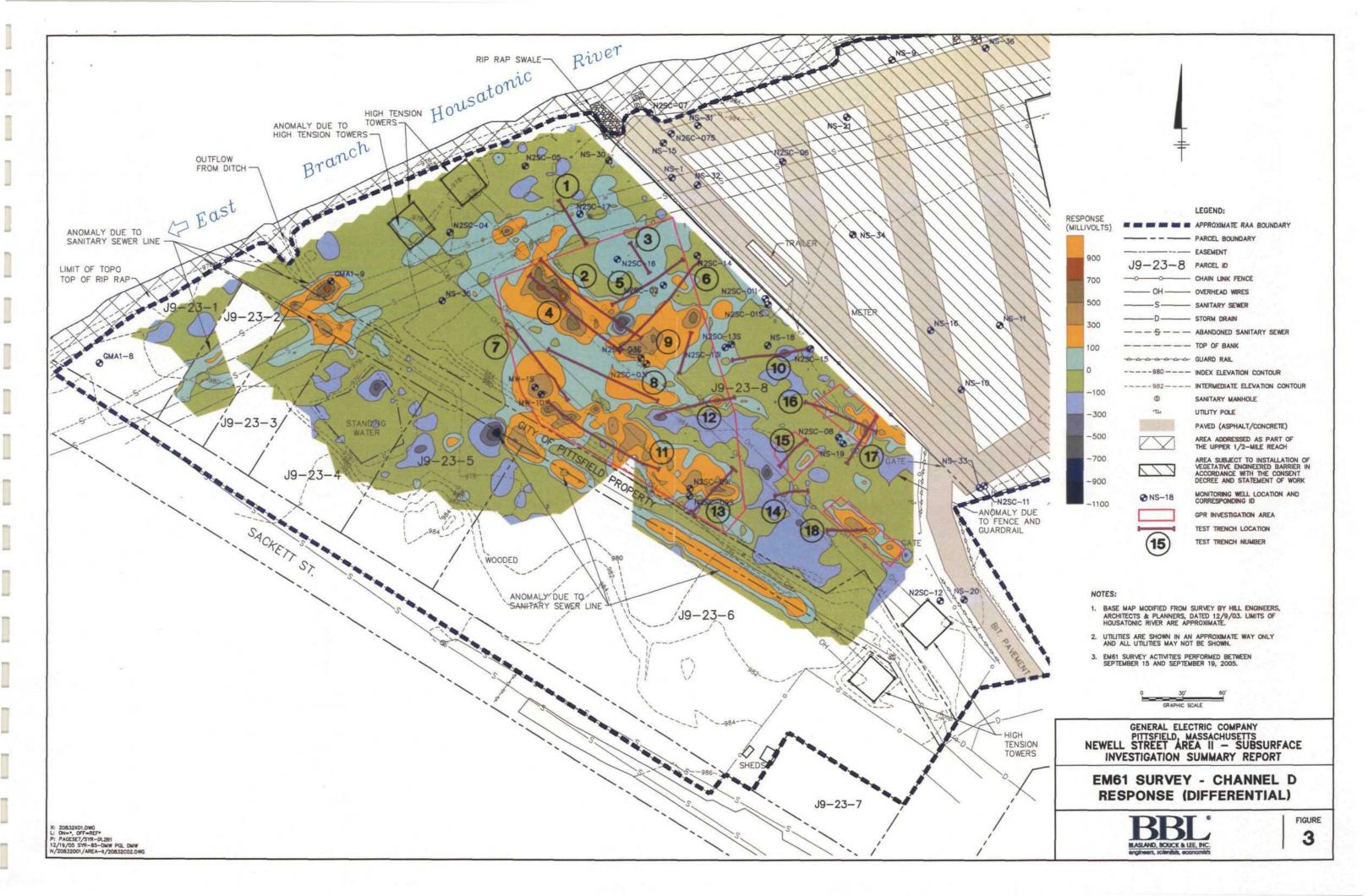
One drum encountered at trench number 8 required overpacking.

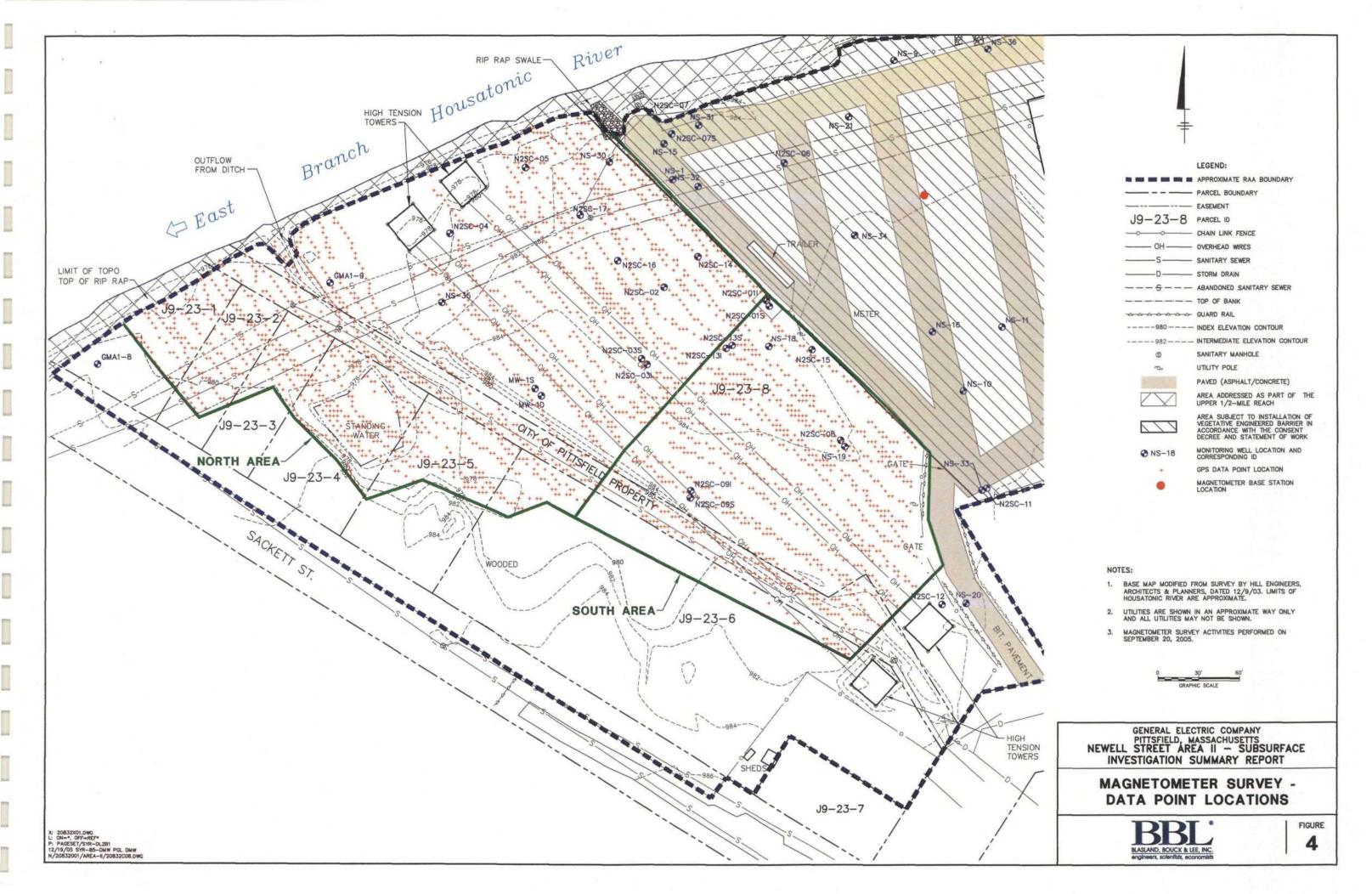
# **Figures**

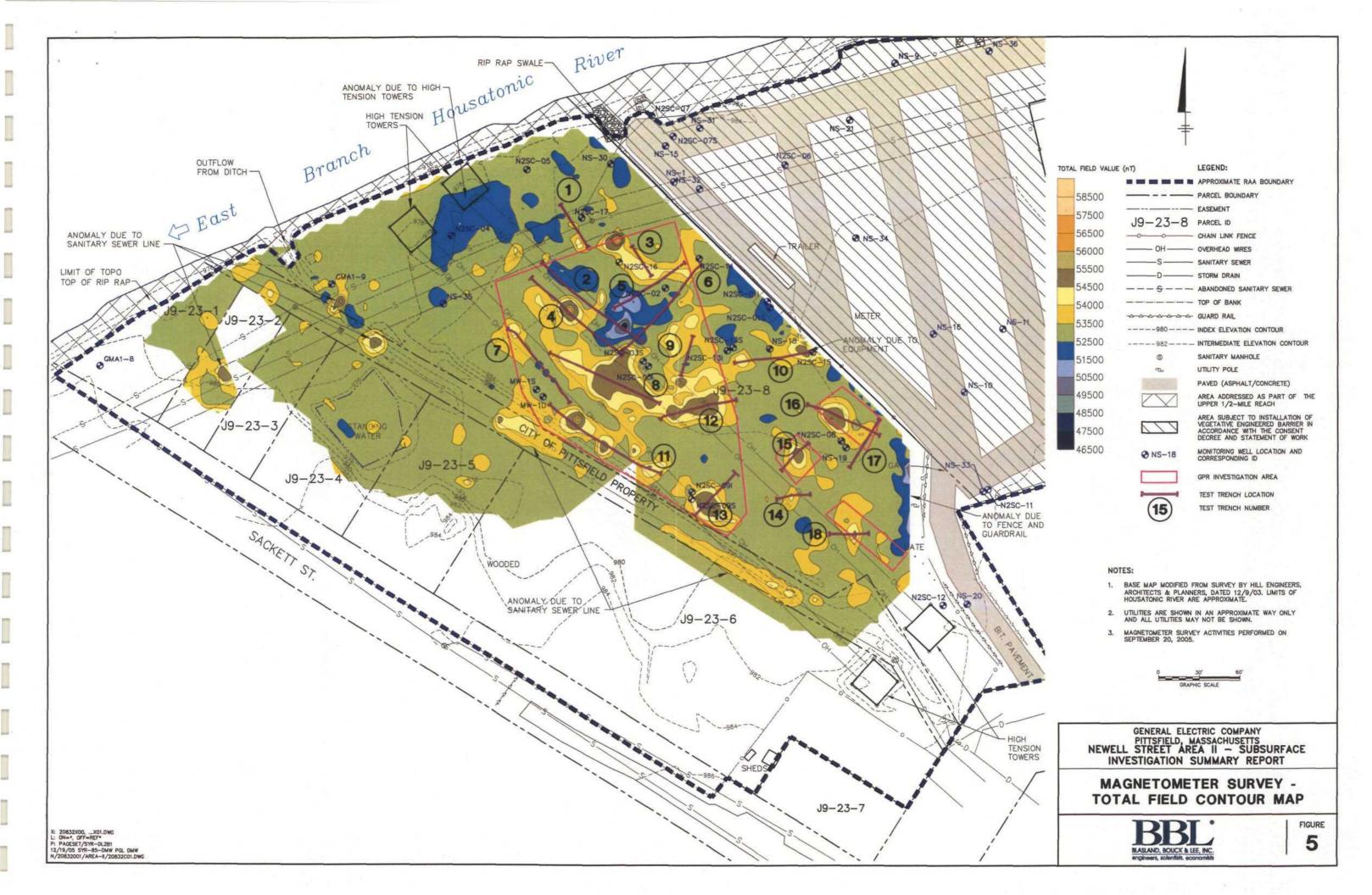


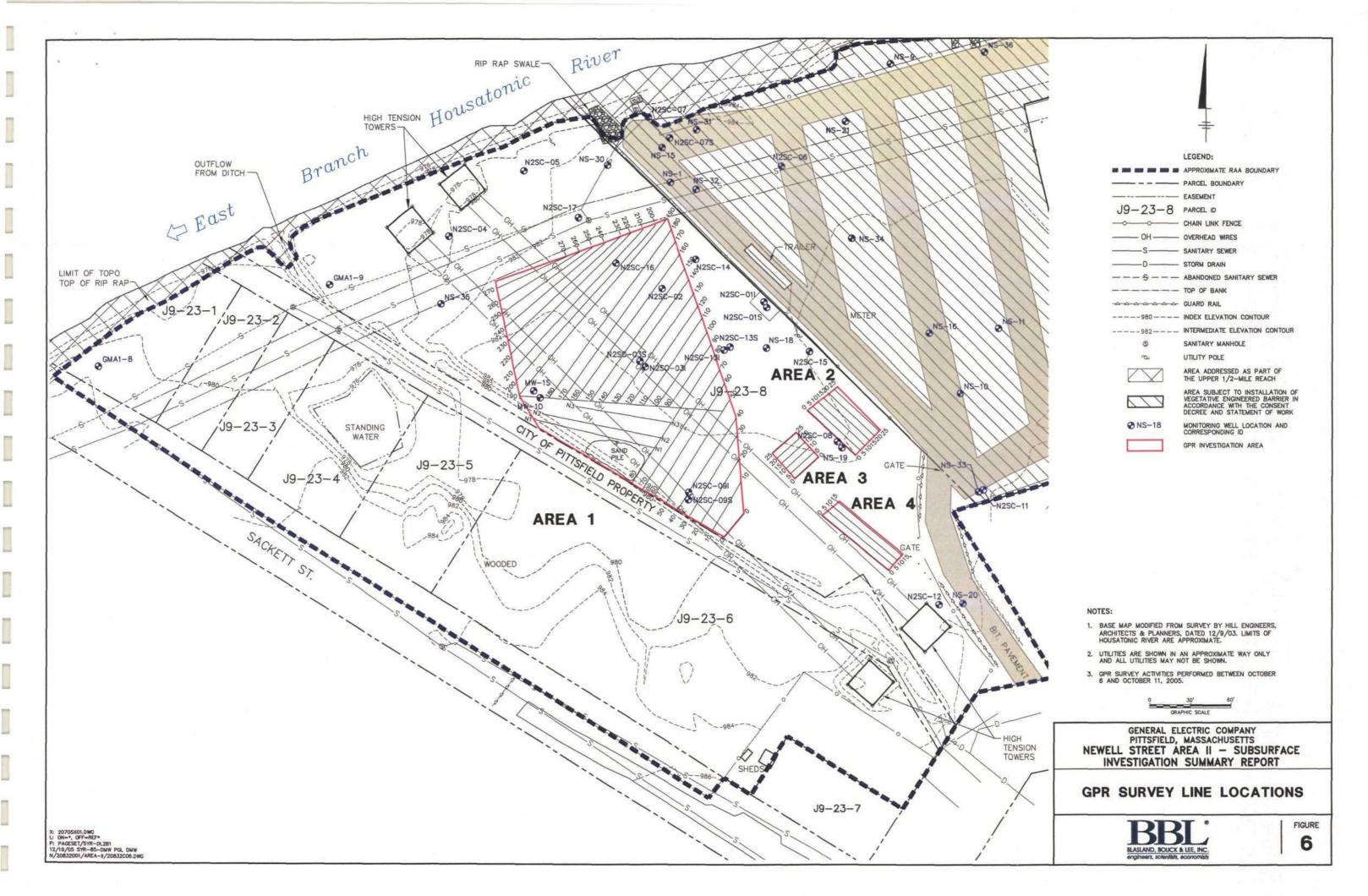


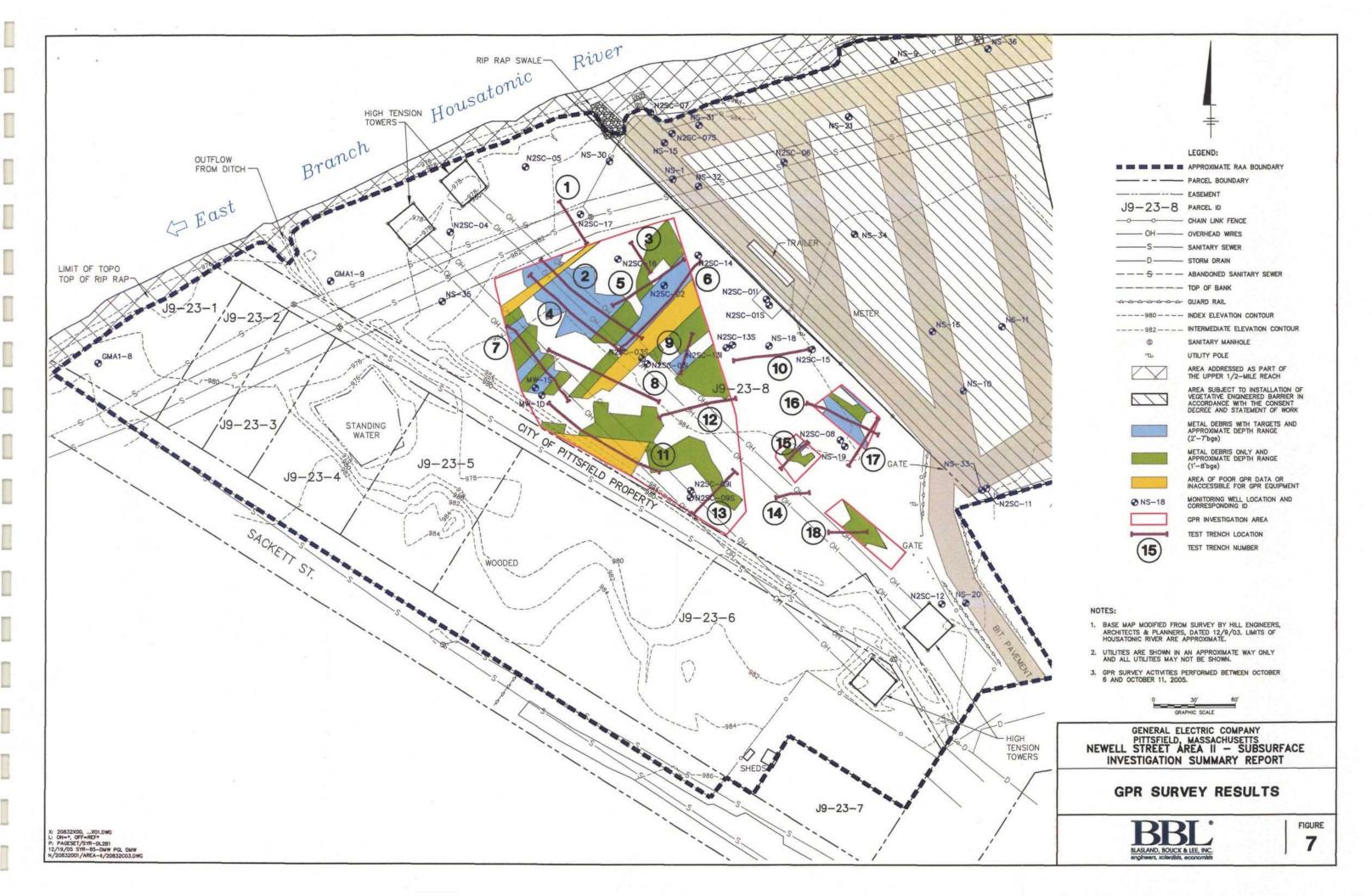


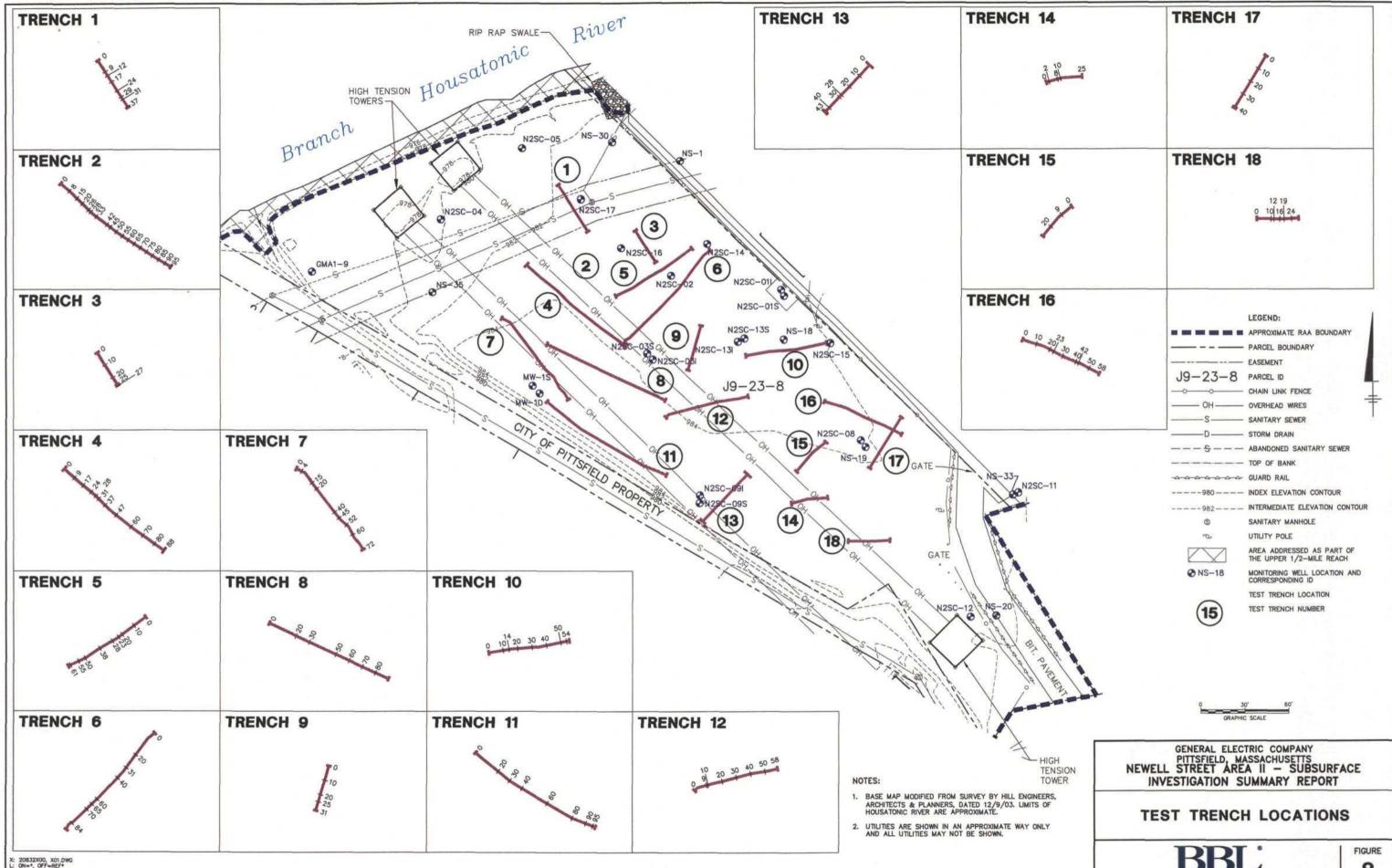












X: 20832X00, X01,DWG L: ON=\*, OFF=REF\* P: PAGESET/S1R=DL2B1 12/19/05 S1R=85=DMW PGL DMW N/20832001/AREA-N/20832C05.DWG

8

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